

including a connector **3056** that extends to the bottom of the well **135**, and the module **3022** has an interface **3023** located on the bottom surface thereof. The port **3014** has resilient clip members **3076** that clip or clamp onto the sides of the module **3022**, and the module **3022** has tabs **3076A** on the sides to lock with the clip members **3076**.

[0188] FIGS. 73-74 illustrate another embodiment of a port **3114**, illustrated as received in a well **135** within a midsole member **131** of an article of footwear. Many features of this embodiment are similar or comparable to features of the port **314** described above and shown in FIGS. 11-18A, and such features are referred to using similar reference numerals under the “31xx” series of reference numerals, rather than “3xx” as used in the embodiment of FIGS. 11-18A. Accordingly, certain features of the port **3114** that were already described above with respect to the port **314** of FIGS. 11-18A may be described in lesser detail, or may not be described at all. In this embodiment, the port **3114** has an interface **3120** including a connector **3156** that extends to the bottom of the well **135**, and the module **3122** has an interface **3123** located on the bottom surface thereof. The module **3122** has a flanged projection **3169** on the bottom surface, proximate the interface **3123**, and the connector **3156** has an opening **3169A** that receives the projection **3169** to connect the interfaces **3120**, **3123** together. In this embodiment, the flanged projection **3169** is resilient and flexible to fit within the opening **3169A** snugly, creating a water seal.

[0189] FIGS. 75-85 illustrate various embodiments of connecting structure for ports **14**, et seq. for connecting the interfaces **3520A-G** of the ports **14**, et seq. to the interfaces **3523A-G** of various modules **3522A-G** having complementary connecting structure. The embodiments in FIGS. 75-85 will be described briefly below with respect to their connecting structures, with the understanding that the connecting structures in FIGS. 75-85 can be used with various designs for ports **14**, et seq., sensor systems **12**, et seq., and footwear **100** described herein.

[0190] FIGS. 75-76 illustrate a module **3522A** that includes a gasket or other water seal **3565A** located around a slot **3569A**, with the interface **3523A** located within the slot **3569A**. The port interface **3520A** has a rigid or flexible Mylar connector **3556A** that slides tightly into the slot **3569A** to form a water seal and connect the interfaces **3520A**, **3523A**.

[0191] FIGS. 77-78 illustrate a module **3522B** that includes a moveable clamping member **3576B** positioned adjacent the interface **3523B**. The clamping member **3576B** can pivot to clamp down on a connector or other component of the port interface (not shown). The module **3522B** may include a gasket or other sealing member (not shown).

[0192] FIGS. 79-80 illustrate a module **3522C** that includes moveable clamping arms **3576C**, with the interface **3523C** located between the arms **3576C**. The port interface **3520C** has a rigid or flexible Mylar connector **3556C**, and the arms **3576C** clamp together on the connector **3556C** to connect the interfaces **3520C**, **3523C**. The arms **3576C** may include gaskets or other sealing members (not shown).

[0193] FIG. 81 illustrates a connecting structure that includes a capsule **3575D** positioned around the interface **3520D**, similar to the capsule **2275** illustrated in FIGS. 61-62 and described above. In this embodiment, the port interface **3520D** and the interface **3523D** of the module **3522D** contain male-female connecting structure, which differs from the configuration in FIGS. 61-62. The port interface **3520D**

includes a connector **3556D** that is received in a receiver **3569D** in the module **3522D** in this embodiment.

[0194] FIG. 82 illustrates a module **3522E** and a port interface **3520E** that include magnets **3577E** around the interfaces **3520E**, **3523E**. The magnets **3577E** connect the interfaces **3520E**, **3523E** together. The module **3522E** may additionally include a gasket or other sealing member (not shown).

[0195] FIG. 83 illustrates a module **3522F** that includes a clamping member **3576F** positioned adjacent the interface **3523F** that is clamped by the use of fasteners **3578F**. The clamping member **3576F** receives a connector **3556F** of the port interface **3520F**, and the fasteners **3578F** are then tightened to clamp down on the connector **3556F**. The module **3522F** also includes a sealing member **3565F** to create a water seal around the connector **3556F**, such as a Mylar liner, a silicone or rubber liner or gasket, or other sealing member **3565F**.

[0196] FIGS. 84-85 illustrate a module **3522G** that includes a slot **3569G** having snap-clamping members **3576G**, with the interface **3523G** located within the slot **3569G**. The module **3522G** also includes a trigger **3579G** within the slot **3569G** that activates the clamping members **3576G** through an internal mechanism. The port interface **3520G** has a Mylar connector **3556G** that is inserted into the slot **3569G**. When the connector **3556G** hits the trigger **3579G**, the clamping members **3576G** clamp together on the connector **3556G** to retain the connector **3556G** in the slot **3569G**. The clamping members **3576G** may sandwich and frictionally retain the connector **3556G**, or may extend through holes in the connector **3556G**. The slot **3569G** may include gaskets or other sealing members (not shown).

[0197] The operation and use of the sensor systems **12**, **212**, including the ports **14**, et seq. shown and described herein, are described below with respect to the sensor system **12** shown in FIGS. 3-5, and it is understood that the principles of operation of the sensor system **12**, including all embodiments and variations thereof, are applicable to the other embodiments of the sensor systems **212**, et seq. and ports **214**, et seq. described above. In operation, the sensors **16** gather data according to their function and design, and transmit the data to the port **14**. The port **14** then allows the electronic module **22** to interface with the sensors **16** and collect the data for later use and/or processing. In one embodiment, the data is collected, stored, and transmitted in a universally readable format, so the data is able to be accessed and/or downloaded by a plurality of users, with a variety of different applications, for use in a variety of different purposes. In one example, the data is collected, stored, and transmitted in XML format. Additionally, in one embodiment, data may be collected from the sensors **16** in a sequential manner, and in another embodiment, data may be collected from two or more sensors **16** simultaneously.

[0198] In different embodiments, the sensor system **12** may be configured to collect different types of data. In one embodiment (described above), the sensor(s) **16** can collect data regarding the number, sequence, and/or frequency of compressions. For example, the system **12** can record the number or frequency of steps, jumps, cuts, kicks, or other compressive forces incurred while wearing the footwear **100**, as well as other parameters, such as contact time and flight time. Both quantitative sensors and binary on/off type sensors can gather this data. In another example, the system can record the sequence of compressive forces incurred by the footwear, which can be used for purposes such as determining foot pronation or supination, weight transfer, foot strike pat-